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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,273	09/02/2005	Adrianus Marinus Gerardus Peeters	NL 020555	3515
24737 7590 05/04/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER KERVEROS, JAMES C	
			ART UNIT 2117	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/518,273

Applicant(s)

PEETERS, ADRIANUS MARINUS
GERARDUS

Examiner

JAMES C. KERVEROS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 1-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/14/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a non-Final Office Action in response to the present US Application 10/518,273, filed: 09/02/2005, which is a 371 of PCT/IB03/02387, filed 06/05/2003.

Claims 1-7 are presently under examination and still pending in the Application.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) to (EPO) 02077495.6, filed 06/21/2002. The certified copy has been filed in parent Application No. 10/518,273, filed: 09/02/2005.

Drawings

The drawings are objected to because the functional blocks, for reference designations 10, 12, 14, 18, 17 of Fig. 1, and 60a-c, 620a-b, 64, 66 of Fig. 6, require proper functional description. Suitable descriptive legends may be used subject to approval by the Office, or may be required by the examiner where necessary for understanding of the drawing. They should contain as few words as possible.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because the legal phraseology "comprises" often used in the claim should be replaced with --includes--. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 1-7 are objected to because of the following informalities:

Claims 1-7 require indentation. Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. The dash "-" designations in the claims should be removed and replaced with indentation. See 37 CFR 1.75 and MPEP § 608.01(m). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 7, the limitation, "dependent on the relative timing of the signals at the inputs", is a relative term which renders the claims indefinite. The term limitation is

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not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claimed invention fails to properly define the timing in relation to the input signals.

Claims 1, 2, 5, similarly, recite the limitation "relative delay", a relative term which renders the claims indefinite, claimed invention fails to properly define the "delay" between two points in time.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al. (US Patent No. 6,895,540), filed: July 18, 2002.

Regarding independent Claims 1, 7, Chen discloses a mux scan cell (40, Fig 3), which is the same as mux scan cells (11 and 13), Fig. 2, comprising:

Combinational logic (32, Fig. 2) that operates asynchronously in a mux-scan chain 30 comprising mux scan cells 11 and 13.

An interface element (multiplexer 42, Fig. 3) having an output (52 out) and at least two inputs (D and TD), where the D input is coupled to the combinational logic 32 and the TD input receives test data, the (multiplexer 42, Fig. 3) supplying a logic output signal at (52 out) in response to the input signals (D and TD), which is a function of the relative timing of the signals.

A delay element (50) coupled between AND gate 49 and OR gate 52 to cause a delay after the (D and TD) signals are applied to the inputs of the multiplexer 42.

A control circuit, such as BIST or external tester not shown, for supplying a selection signal SEL used to switch between test mode and normal mode of the mux scan cell 40, which selectively activates the delay caused by the delay element (50), when the SEL=1 is in the test mode, then the value of TD is transmitted after a delay to the flip-flop 14.

Regarding Claims 2-6, Chen discloses test data TD coupled to the multiplexer 42. A control circuit, such as BIST or external tester not shown, for providing selection signal SEL used to switch between test mode and normal mode of the mux scan cell 40. When SEL=1, test mode is selected, the output of AND gate 49 is inputted to the delay circuit 50, which delays the transmission of TD to the input of OR gate 52. Next, a result of "0" OR TD is outputted from the OR gate 52, and TD is outputted from the multiplexer 42 to the flip-flop 14. Since SEL=1, the mux scan cell 40 is in test mode, and the value of TD was transmitted after a delay to the flip-flop 14.

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Further, Chen discloses a scan chain 30 comprising mux scan cells 11 and 13, Fig. 2, which are the same as mux scan cell (40, Fig. 3). During the test mode of the mux scan chain 30, both setup and hold times of the $Q_{sub.n-1}$ signal are satisfied with respect to the active edge of the clock CLK, since signal $Q_{sub.n-1}$ travels through the delay circuit 50, which delays the moment when the signal $Q_{sub.n-1}$ reaches the flip-flop 14 of the first and second mux scan cells 11, 13.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES C. KERVEROS whose telephone number is (571) 272-3824. The examiner can normally be reached on 9:00 AM TO 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques H. Louis-Jacques can be reached on 571) 272-4150. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 2 May 2007

Office Action: Non-Final Rejection

U.S. Patent and Trademark Office
Alexandria, VA 22314

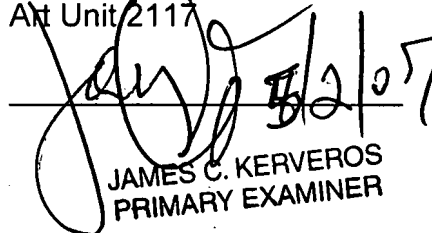
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JAMES C KERVEROS

Primary Examiner

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 5/2/07

JAMES C. KERVEROS
PRIMARY EXAMINER